

LEM Model LA 25-NP

Definition

The LEM Model LA 25-NP is a multi-range current transducer for the electronic measurement of currents (DC, AC and pulsed) with galvanic isolation between the primary (measured) and the analog output (control) signal.

Electrical Data

Nominal Current I_N	: 25 At rms
Measuring Range	: 0 to ± 36 At
Measuring Resistance	: R_M min. R_M max.
with ± 15 V at ± 25 A max	: 100 Ohms 320 Ohms
at ± 36 A max	: 100 Ohms 190 Ohms
Nominal Analog Output Current	: 25 mA
Turns Ratio	: 1-2-3-4-5 : 1000
Overall Accuracy at $+25^\circ\text{C}$: $\pm 0.6\%$ of I_N
Supply Voltage	: + and - 15 V ($\pm 5\%$)
Isolation	: 2.5kV rms/50Hz/1 min

Accuracy - Dynamic Performance

	Typical	Maximum
Zero Offset Current at $+25^\circ\text{C}$: ± 0.02 mA	± 0.05 mA
Residual current after overload of $3 \times I_N^*$: ± 0.05 mA	± 0.15 mA
Thermal Drift of Offset Current	:	
(between 0°C and $+25^\circ\text{C}$)	: ± 0.06 mA	± 0.25 mA
(between $+25^\circ\text{C}$ and $+70^\circ\text{C}$)	: ± 0.1 mA	± 0.35 mA
Linearity	: better than 0.2%	
Response Time	: better than 1 μs	
Bandwidth	: 0 to 150 kHz (-1dB)	

General Data

Operating Temperature	: 0°C to $+70^\circ\text{C}$
Storage Temperature	: -25°C to $+85^\circ\text{C}$
Current Consumption	: 10 mA + output current
Secondary Internal Resistance	: 110 ohms (at $+70^\circ\text{C}$)
Primary Internal Resistance	: < 1.25 mohm/turn
Isolation Resistance	: > 1500 Mohm (at 500V and $+25^\circ\text{C}$)
Weight	: 22 grams
Fastening	: potted in insulated self-extinguishing plastic case
Polarity	: A positive measuring current is obtained on the output when the primary current flows from terminals 1,2,3,4 and 5 to terminals 10, 9, 8, 7 and 6

- Notes
- This is a standard model: for different versions (e.g. supply voltage, turns ratio, mechanical dimensions, unidirectional measurement, etc.) please contact us.
 - * Result of the coercive field of the magnetic circuit

Patent Pending

920716/2

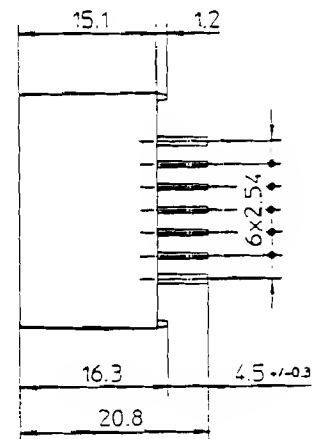
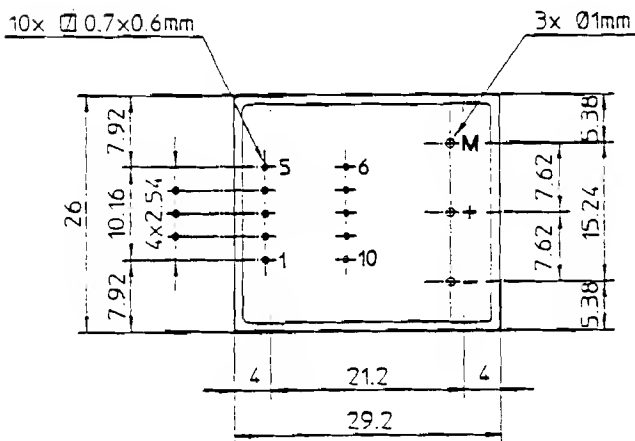
LEM U.S.A., INC.
PIONEERING POWER ELECTRONICS

6643 West Mill Road Milwaukee, WI 53218
Phone: 414-353-0711 Fax: 414-353-0733

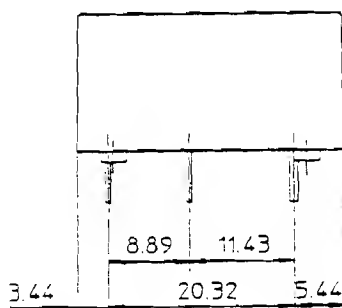
LE-THETA

a member of LEM HOLDING S.A.

Number of primary turns	Primary current		Nominal output current I_s [mA]	Turn ratio	Primary resistance [mOhm]	Primary insertion inductance [μ H]	Recommended connections
	nominal I_p [A]	maximum I_s [A]					
1	25	36	25	1/1000	0.3	0.023	
2	12	18	24	2/1000	1.1	0.09	
3	8	12	24	3/1000	2.5	0.21	
4	6	9	24	4/1000	4.4	0.37	
5	5	7	25	5/1000	6.3	0.58	



Recommended PCB hole diam. : \varnothing 1.2 mm



Connection

